

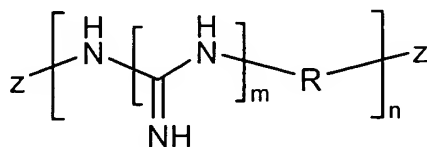


Appln. No. 10/502,011
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IN THE CLAIMS

1. (original): A process for forming a chain extended thermoplastic polymer which comprises reacting:

- (i) a prepolymer comprising a salt of a compound of Formula (1):



Formula (1)

wherein:

each R independently is a C₆-alkylene group;

m is 1 or 2;

n is 1 to 100;

Z is a nucleophilic group; and

- (ii) a chain extender having at least two groups able to react with the nucleophilic groups in (i).

2. (original): A process according to claim 1 which is performed at a temperature of 0 to 110°C.

3. (original): A process according to claim 1 wherein the nucleophilic group is thiol, hydroxy or an amino group.

4. (previously presented): A process according to claim 1 wherein the at least two groups able to react with the nucleophilic groups in (i) are selected from isocyanate, epoxide, halide and (meth)acrylate.

5. (previously presented): A process according to claim 1 wherein the nucleophilic end groups are amino groups, including an amino group in salt form, and the at least two groups able to react with the reactive groups in (i) are selected from isocyanate and epoxide.
6. (previously presented): A chain extended thermoplastic polymer obtained by a process according to claim 1.
7. (original): A composition comprising:
- (a) from 0.1 to 10 parts of a chain extended thermoplastic polymer according to claim 6;
 - (b) from 0 to 10 parts of binder;
 - (c) from 30 to 60 parts of water-soluble organic solvent; and
 - (d) from 35 to 80 parts water;
- wherein all parts are by weight and the total number of parts (a) + (b) + (c) + (d) = 100.
8. (original): An ink-jet printing process comprising the steps (a) and (b) in any order or simultaneously:
- (a) applying an ink to a substrate by means of an ink-jet printer in a localised manner to form an image on the substrate; and
 - (b) applying to the substrate a fixing composition comprising a chain extended thermoplastic polymer according to claim 6, a liquid medium and optionally a binder.
9. (original): A substrate printed with an image by means of the process according to claim 8 .
10. (original): A recording sheet comprising a substrate, a chain extended thermoplastic polymer according to claim 6 and optionally a binder.

11. (original): A set of liquids suitable for use in an ink-jet printer comprising:

(a) a fixing composition comprising:

- (i) 0.01 to 50 parts, more preferably 0.1 to 30 and especially from 0.1 to 10 parts of a chain extended thermoplastic polymer according to claim 6;
- (ii) 50 to 99.8, more preferably 60 to 80 parts of a liquid medium selected from water, one or more water-soluble organic solvents and a mixture of water and one or more water-soluble organic solvents; and
- (iii) 0 to 50, preferably 0 to 40, more preferably from 0 to 10 parts of a binder;

wherein all parts are by weight and the total number of parts (i) + (ii) + (iii) = 100; and

(b) an ink comprising a colorant and a liquid medium.

12. (original): An ink-jet printer cartridge comprising a plurality of chambers and a set of liquids, wherein the liquids are contained in individual chambers of the ink-jet printer cartridge and the set of liquids is as defined in claim 11.

13. (original): An ink-jet printer cartridge comprising a plurality of chambers and a composition according to claim 7, wherein the composition is contained in the chamber of the ink-jet printer cartridge.

14. (new): The process of claim 1 wherein the pre-polymer has less than 10% branching.